



U-Pick Game Analytics

Project 5

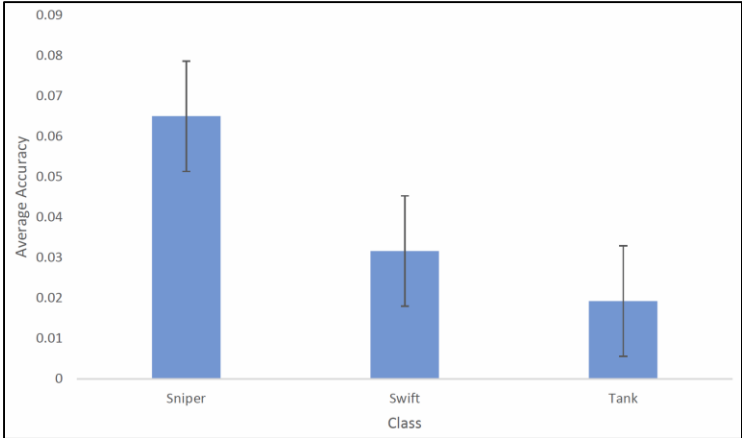
IMGD 2905

<http://web.cs.wpi.edu/~imgd2905/d17/projects/proj5/index.html>

Accuracy of Character Classes



Rumble (custom game) – Alex Hebert and Sam Winter



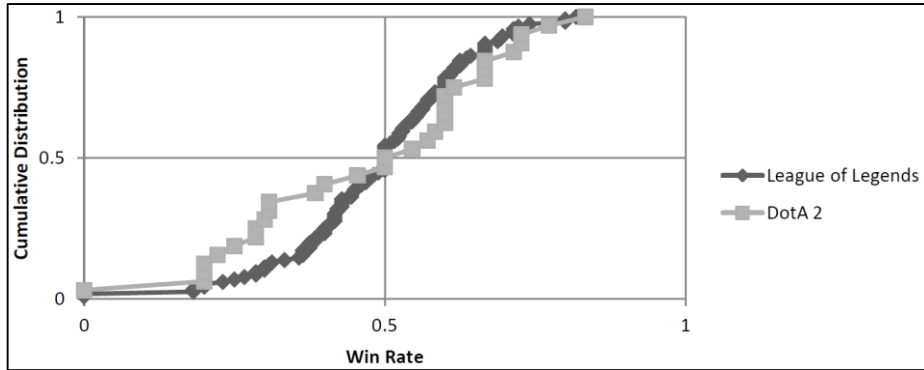
Average projectile accuracy of different playable classes.



Distribution of Win Rates



Dota 2 and League of Legends – Ben Huchley

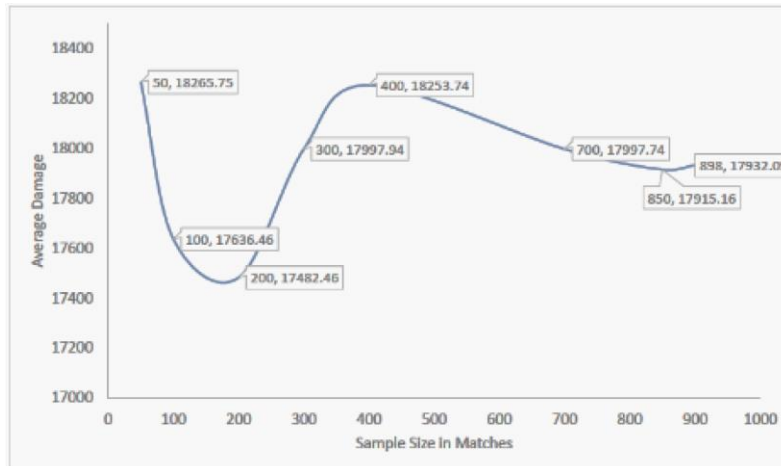


Cumulative distributions of win rates by character in League of Legends and Dota 2.

Average Damage versus Sample Size



League of Legends – Aaron Graham and Sienna McDowell

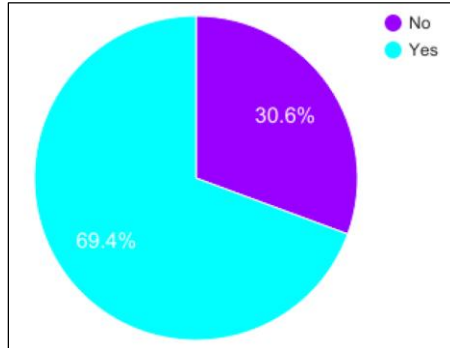


Taking an increasingly large sample results in results in stabilization of average damage around 17900, suggesting sample size of 800 is needed.

First Tower Win Rate



League of Legends – Elizabeth Delmonaco

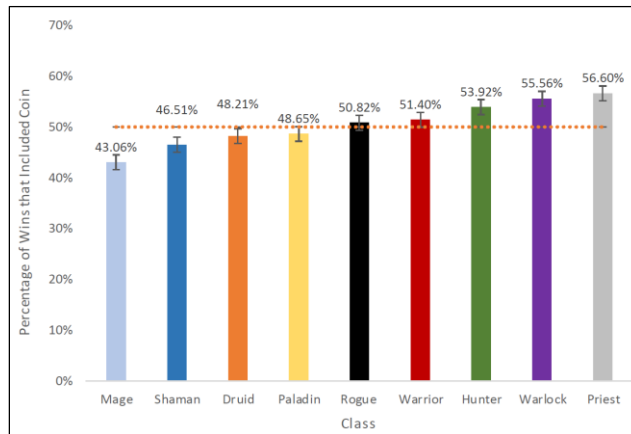


Shows whether or not team that got first tower also won.
 Teams that got first tower won about 70% of the time.

Win Percentage when Second vs Class



Hearthstone – David Allen and Henry Wheeler-Mackta

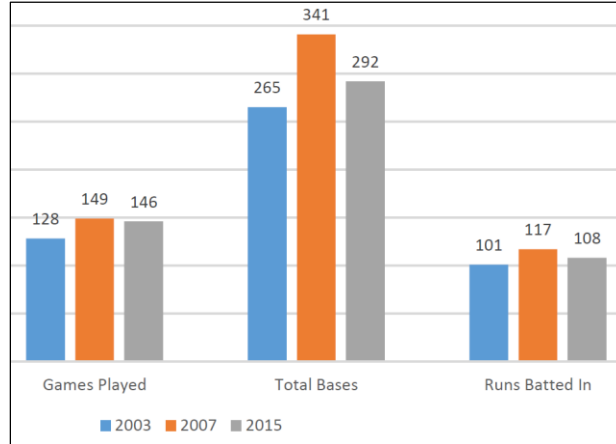


Average percentage of winning players divided by class that went second (held "The Coin.") All 9 classes featured in *Hearthstone* are included.

David Ortiz – Early, Mid, Late



Major League Baseball – Evan Frost



Player near career end often playing worse than when younger. 2003 was David Ortiz' first year with Red Sox, 2007 midway through career when Red Sox won World Series, and 2015 right before end of career. The legend does not disappoint, playing better than he had at the start!

Impact of Tutorial



Boyhood (custom game) – Bailey Hostek

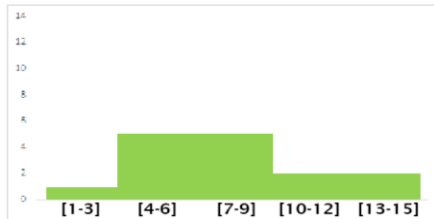


Figure 3 - Highest Level Reached with Tutorial



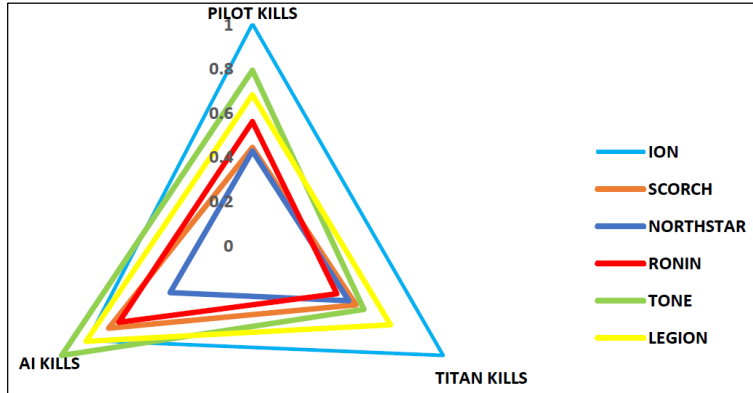
Figure 4 – Highest Level reached without Tutorial

Left is histogram showing highest level reached by players who went through the tutorial. Right is histogram showing same data, only for those who did not view tutorial. Bucket size for both histograms is three elements.

Titan Comparison

TITANFALL|2

Titanfall 2 – Sean Welch

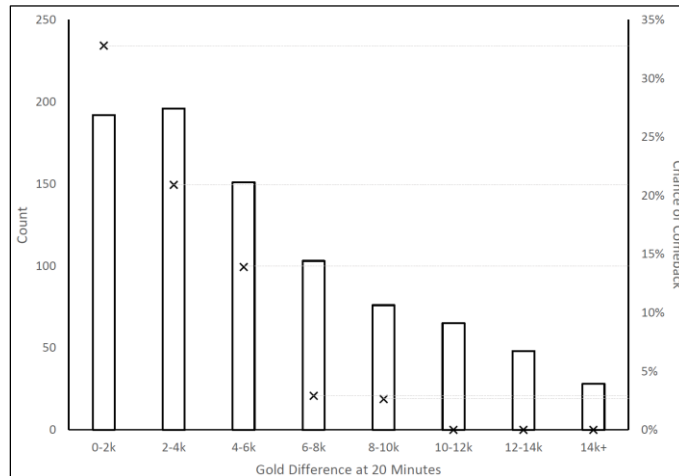


Best Anti-Titan/Anti-Pilot Class was Ion. Tone was best against AI. Least suited to Anti-Personnel Tactics was Northstar. Ronin was weakest against other Titans.

Chance of Comeback vs. Gold @ 20



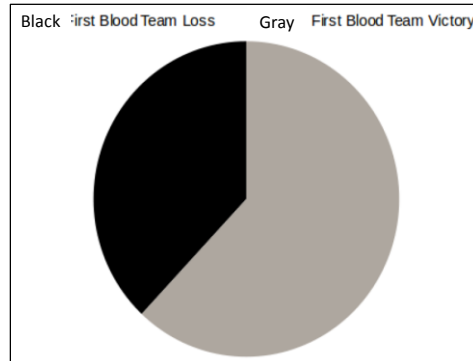
League of Legends – Antony Qin



X axis shows gold difference between teams at 20 minutes. Left y axis shows count, and right y axis shows percentage of times behind team (had less gold at 20 minutes) won game. Each "X" corresponds to right y axis.

First Blood and Winning

League of Legends – [Peter Nolan](#)



Winning after first blood versus losing after first blood. 62 out of 100 of games ended with first blood team achieving victory, and with 38 out of 100 of games ending in their defeat.

Heat Maps of Player Deaths

Osmorrow (custom game) – [Matt Thompson](#)

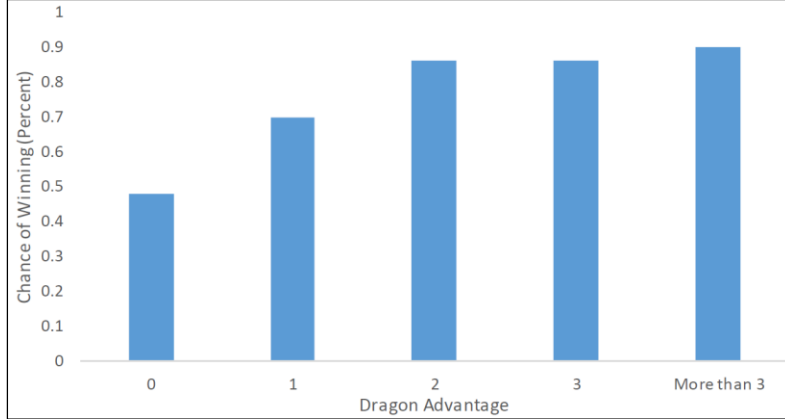


White shows where enemies died. Dense “clouds” show popular strategy was to knock enemies back into corners and then kill them there.

Winning versus Dragons



League of Legends – Javier Marcos Fernandez

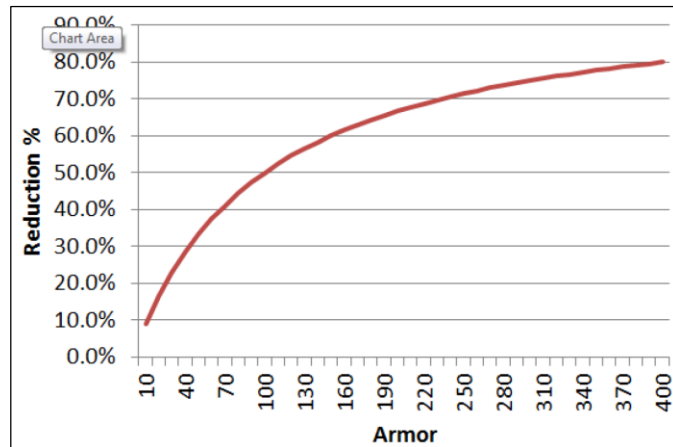


Chance of winning based on how many more Dragons killed. X axis shows difference in dragons slain by two teams, while Y axis shows percent likely team with more dragons killed will win.

Damage Reduction from Armor



Vainglory – Edward Shaddock



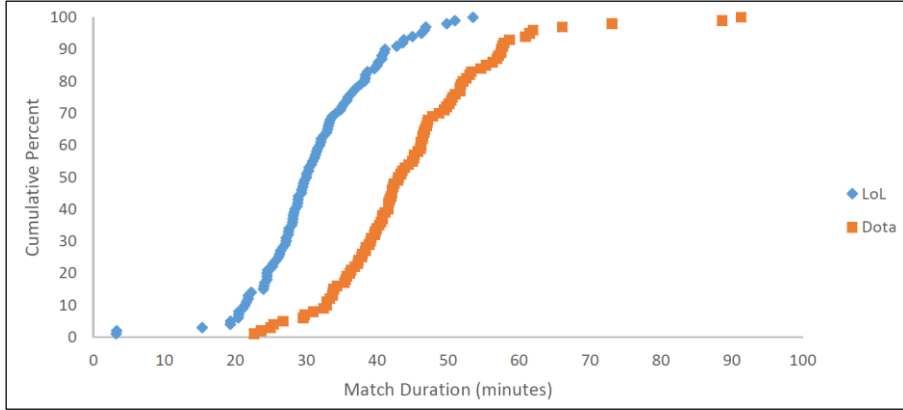
Reduction percent computed as formula based on weapon damage and armor amount.



Cumulative Distribution of Duration



Dota 2 and League of Legends – Isaac Woods

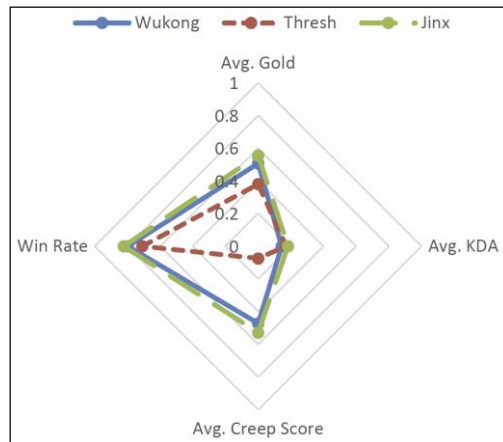


X-axis is duration of match, and Y-axis is cumulative percent. Blue diamond series (left) is League of Legends, and orange square series (right) is Dota 2. Dota 2 matches about 10 to 20 minutes longer than equivalent League of Legends matches.

Comparison of Top 3 Most Picked Champions



League of Legends – Adam Moran



Suggests Wukong and Jinx similar playstyles or roles in game since trend lines similar - Jinx's averages slightly higher than Wukong's. Thresh noticeably different trendline, specifically for average gold and average creep score.